This listing of claims will replace all prior versions of claims in this Application.

Listing of Claims

Claim 1. (Currently amended) A method for depositing ~~a method of depositing~~ a seed layer comprising the step of disposing on a substrate having a non-conductive layer and apertures of ≤ 1 μm a layer comprising one or more conductive polymers to form the seed layer.~~.~~

Claim 2. (Currently amended) The method of claim 1 wherein the non-conductive layer is selected from a dielectric layer ~~or~~ and a barrier layer.

Claim 3. (Original) The method of claim 2 wherein the dielectric layer comprises one or more of silicon dioxide, fluorinated silicon dioxide, organopolysilica materials, or organic dielectric materials.

Claim 4. (Currently amended) The method of claim 2 wherein the barrier layer ~~is selected from~~comprises tantalum, tantalum nitride, titanium, titanium nitride, tungsten, tungsten nitride, molybdenum, molybdenum nitride, cobalt or cobalt nitride.

Claim 5. (Currently amended) The method of claim 1 wherein the one or more conductive polymers ~~are selected from polyaniline, polyacetylene, polypyrrole, polythiophene or graphite~~comprise as polymerized units one or more monomers chosen from acetylene, aniline, pyrrole and thiophene.

Claim 6. (Currently amended) The method of claim ~~4~~ 1 wherein the one or more ~~of polyaniline, polyacetylene, polypyrrole or polythiophene~~conductive polymers are substituted.

Claim 7. (Currently amended) The method of claim 1 wherein the apertures are less than or equal to 0.5 μm.

Claim 8. (Currently amended) A method for depositing a metal layer on a substrate comprising the steps of: disposing on a substrate having a non-conductive layer and apertures of ≤ 1 μm a seed layer comprising one or more conductive polymers; contacting the substrate with a metal electroplating bath; and subjecting the substrate to a current density for a period of time sufficient to deposit a metal layer on the ~~conductive~~ seed layer.

Claim 9. (Currently amended) The method of claim 8 wherein the non-conductive layer is selected from a dielectric layer ~~or~~ and a barrier layer.

Claim 10. (Original) The method of claim 9 wherein the dielectric layer comprises one or more of silicon dioxide, fluorinated silicon dioxide, organopolysilica materials, or organic dielectric materials.

Claim 11. (Currently amended) The method of claim 9 wherein the barrier layer ~~is selected from~~comprises tantalum, tantalum nitride, titanium, titanium nitride, tungsten, tungsten nitride, molybdenum, molybdenum nitride, cobalt or cobalt nitride.

Claim 12. (Currently amended) The method of claim 8 wherein the one or more conductive polymers ~~are selected from polyaniline, polyacetylene, polypyrrole, polythiophene or graphite~~comprise as polymerized units one or more monomers chosen from acetylene, aniline, pyrrol and thiophene.

Claim 13. (Currently amended) The method of claim ~~12~~ 8 wherein the one or more ~~of polyaniline, polyacetylene, polypyrrole or polythiophene~~conductive polymers are substituted.

Claim 14. (Currently amended) The method of claim 8 wherein the apertures are less than or equal to 0.5 μm.

Claim 15. (Currently amended) The method of claim 8 wherein the metal ~~is selected from~~comprises one or more of copper, nickel, aluminum, tin, lead or tungsten.

Claim 16. (Original) The method of claim 8 wherein the metal electroplating bath comprises an acidic electrolyte.

Claim 17. (Currently amended) A method for manufacturing an electronic device comprising the steps of: disposing on an electronic device substrate having a non-conductive seed layer and apertures of ≤ 1 μm a layer comprising one or more conductive polymers; contacting the substrate with a metal electroplating bath; and subjecting the substrate to a current density for a period of time sufficient to deposit a metal layer on the ~~conductive~~ seed layer.

Claim 18. (Currently amended) The method of claim 17 wherein the non-conductive layer is selected from a dielectric layer ~~or~~ and a barrier layer.

Claim 19. (Original) The method of claim 18 wherein the dielectric layer comprises one or more of silicon dioxide, fluorinated silicon dioxide, organopolysilica materials, or organic dielectric materials.

Claim 20. (Currently amended) The method of claim 18 wherein the barrier layer ~~is selected from~~comprises tantalum, tantalum nitride, titanium, titanium nitride, tungsten, tungsten nitride, molybdenum, molybdenum nitride, cobalt or cobalt nitride.

Claim 21. (Currently amended) The method of claim 17 wherein the one or more conductive polymers comprise as polymerized units one or more monomers chosen from acetylene, aniline, pyrrol and thiophene~~are selected from polyaniline, polyacetylene, polypyrrole, polythiophene or graphite~~.

Claim 22. (Currently amended) The method of claim ~~21~~ 17 wherein the one or more ~~of polyaniline, polyacetylene, polypyrrole or polythiophene~~conductive polymers are substituted.

Claim 23. (Currently amended) The method of claim 17 wherein the apertures are less than or equal to 0.5 μm.

Claim 24. (Currently amended) The method of claim 17 wherein the metal ~~is selected from~~comprises one or more of copper, nickel, aluminum, tin, lead or tungsten.

Claim 25. (Original) The method of claim 17 wherein the metal electroplating bath comprises an acidic electrolyte.

Claim 26. (Original) The method of claim 17 wherein the electronic device is an integrated circuit.

Claim 27. (Currently amended) A method of enhancing a seed layer comprising the ~~steps~~ step of: contacting a substrate having a discontinuous seed layer with one or more conductive polymers to provide a substantially continuous seed layer.

Claim 28. (Currently amended) The method of claim 27 wherein the non-conductive layer is selected from a dielectric layer ~~or~~ and a barrier layer.

Claim 29. (Original) The method of claim 28 wherein the dielectric layer comprises one or more of silicon dioxide, fluorinated silicon dioxide, organopolysilica materials, or organic dielectric materials.

Claim 30. (Currently amended) The method of claim 28 wherein the barrier layer ~~is selected from~~comprises tantalum, tantalum nitride, titanium, titanium nitride, tungsten, tungsten nitride, molybdenum, molybdenum nitride, cobalt or cobalt nitride.

Claim 31. (Currently amended) The method of claim 27 wherein the one or more conductive polymers comprise as polymerized units one or more monomers chosen from acetylene, aniline, pyrrol and thiophene~~are selected from polyaniline, polyacetylene, polypyrrole, polythiophene or graphite~~.

Claim 32. (Currently amended) The method of claim 31 wherein the one or more ~~of polyaniline, polyacetylene, polypyrrole or polythiophene~~conductive polymers are substituted.

Claim 33. (Currently amended) The method of claim 27 wherein the apertures are less than or equal to 0.5 μm.

Claim 34. (Original) An electronic device substrate having apertures of ≤ 1 μm and having a substantially continuous seed layer comprising one or more conductive polymers.